



# EVOLUTION OF THE STUDY AND PRACTICE OF PERSONALITY AT WORK

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*This article reviews the dynamic evolution of personality research and practice in work organizations from the early 1900s through the present. The article reveals steady-state equilibrium in the world of practice. In contrast, the world of research is shown to be punctuated by rapid changes in conceptual foci, levels of analysis, and methodological approaches, as well as whether or not personality at work is even considered important. Explanations are offered for these trends, including the ways theory and research in the larger world of the study of personality have been reflected in personality research in and on work organizations. The article concludes with some thoughts about revisiting various branches in this evolution and suggestions for the future of personality research and practice in work organizations. © 2007 Wiley Periodicals, Inc.*

**T**o understand the current status and likely future of the study of personality at work, it is important to look back and explore the routes by which the present has been achieved. Then, based on an exploration of the evolutionary journey to the present, predictions of what the future might be may be entertained. Such a review is important at the present time because there is increasing evidence that personality is an important correlate of both individual performance (Barrick, Mount, & Judge, 2001) and satisfaction (Staw, 2004) at work as well as a correlate, in the aggregate, of the structure, strategy, and culture of organizations (Schneider & Smith, 2004). But such positive conclusions have not always been true with regard to the role

of personality at work, and the evolution to the present state of affairs might be instructive for the explication of future needs and trends.

The approach taken is to assume that the history of the study of personality at work has not proceeded smoothly. That is, since progress in science likely follows evolutionary principles like all other natural phenomena, exploration can be assumed to follow a step function rather than a smooth function. Thus, not only in biology is the step function ("punctuated equilibrium") of evolution and change observed (Gould, 2002), but it also is clear in the study of organizational growth and change (Aldrich, 1999) and in the growth and development of science (Kuhn, 1970). The focus then will be

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on exposing trends over time in what the foci of the study of personality at work have been, how those foci may have changed, and the likely precipitating event or events that resulted in the change. The goal of this exposition is to paint a picture of the ebbs and flows of the evolution of the study—and practice—of personality at work that can be used as a basis for explicating likely future trends and needs for research and practice that otherwise would not be clear.

At the outset, it should be made explicit that the present analysis explores the ebbs and flows of research on personality at work and how this area of inquiry has evolved over time; it does not present a new theory of personality at work. By exploring how the field has evolved from there (early 1900s) to here (the twenty-first century), it becomes clear that the focus has variously been on individual differences in personality, situational determinants of behavior ignoring personality, aggregate assumptions about personality and its role in understanding aggregate human behavior in the workplace, the natural evolution to a person X situation perspective including person-environment (P-E) fit, and the recent trend back to a new

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and invigorated focus on individual differences. Also, as with the evolution of any organism, some branch off into additional approaches that later became dead ends and are ignored or identified and possible reasons for the demise and periodic disappearance of these dead ends are provided.

This article assumes a vantage point roughly segmented into decades after an initial early period that covers work through the 1930s. Time, rather than constructs or methods, is used as the frame of reference because the *Zeitgeist*, or the climate of the times, in the broader field of the study of personality generically, plays a significant role in how the study of personality at work evolved. It is important to retain this feature of the evolution of the topic of interest be-

cause such perturbations are likely to occur in the future, and it is useful to be sensitive to them. In the present case, then, the issue of interest is the cycle of research questions pursued over time and the methods used, rather than a specific theoretical or methodological issue, as interesting as specific conceptual issues or methods may be.

### In the Beginning—The 1920s and 1930s

By the 1920s, the quantitative study of personality was well under way. This work went by various names—temperament and character also were used. By 1930, May and Hartshorne (1926; May, Hartshorne, & Welty, 1927, 1928, 1929, 1930, as cited in Viteles, 1932) had produced five reviews in the *Psychological Bulletin* in which they showed, for example, what is now called “reliability” or “conscientiousness” was a holistic personality construct they called “consistency.” Consistent or integrated individuals, they proposed based on evidence, were predictable in their behavior while inconsistent individuals were not. They found that the well-integrated individual was more trustworthy, more industrious, and more punctual.

This example demonstrates how the field has evolved because it will be shown that interest in consistency (or conscientiousness) as a personality attribute went out of favor for many years and then re-emerged in the 1990s. The re-emergence in the 1990s of conscientiousness in studies of personality at work occurred based on work by more basic personality researchers interested in the structure of personality, *per se*, rather than its usefulness in the workplace.

By the late 1920s and early 1930s, there already existed the Bernreuter (1931) Personality Inventory (with four scales, two of which were emotional stability and introversion-extraversion), and Thurstone had developed the Neurotic Inventory (Thurstone & Thurstone, 1929). So early on, both Bernreuter and Thurstone saw the importance of emotional stability/neuroticism as relevant personality attributes, another insight that will re-emerge later.

While considerable progress was apparently being made in academic research and the development of personality inventories, Viteles, in his 1932 book, *Industrial Psychology*, reviewed the evidence and concluded: "Useful tools for the predictions of important character traits on the part of applicants for employment are still in a highly experimental stage" (p. 246). Viteles (1932), following Fisher and Hanna (1931), attributed much of job dissatisfaction to worker maladjustment rather than the job situation, another issue that emerges and re-emerges as a function of the *Zeitgeist*.

But the research was promising and, led by Allport (1937) and Murray (1938) in the late 1930s, the American approach to the study of personality developed. Allport's 1937 text defines the starting point for the subdiscipline of personality psychology, and his investigation of the trait names common for describing people's personalities (more than 17,000) began the movement, eventuating in the Five-Factor Model (FFM) of today. Murray's 1938 book, in which he presented the conceptualization of his need-pressure theory, is the beginning of the idea that the "fit" of a person and the situation in which the person exists is important for an understanding of the personality-behavior link. Both had a major impact on what followed in American personality psychology, with perhaps the greatest impact being the idea that people are made up of sets of traits and needs.

It is important to note that the period through the late 1930s in the United States was a time of considerable interest in the individual differences of people generally, as well as individual differences in personality. This was the age of the school of functionalism in U.S. psychology. This school of psychology was philosophically focused on the usefulness of individual attributes (the *functions* of individual differences) and had its roots in Darwin's theory of evolution with regard to the issue of the fitness and environmental success of the organism. Functionalism was the home of educational psychology and industrial psychology and also the home of the development and use of "mental tests" (Cattell, 1890).

## Summary

Through the end of the 1930s, many of the most significant issues in the study of personality at work had already received conceptual and research attention. Both emotional stability and conscientiousness had been identified as potentially important personality traits with regard to people's behavior, the importance of personality in understanding job satisfaction was identified, the beginnings of the lexical approach to explicating the dimensions of personality had begun, and the notion that the fit of the personality to the setting had important affective consequences was well established. It seemed that the beginnings looked promising for this new "mental test" model of personality.

## The 1940s

The 1940s *Zeitgeist* was dominated by World War II, so it is not surprising that the focus of personality testing was in the military, particularly on officers. Thus, research on personality in work organizations in the 1940s was somewhat slowed by World War II, except for the fact that psychologists assisted the U.S. Army in the development of advanced assessment techniques, including personality inventories, job simulations, and clinical interviews. World War II also saw the development of the statistical models most frequently used to the present time to explore selection test validity, including personality tests (Thorndike, 1949). Techniques for assessment and statistical models also were developed and used in the United Kingdom and Germany, especially for the selection and appointment of officers, pilots, and spies. It is fair to say that the application of personality testing to the world of war (and work) was stimulated by World War II.

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Indeed, a variety of researchers showed that personality was a successful predictor of work effectiveness, especially for leaders. The problem was that the predictions sometimes worked (like in the Army for pilots and officers) and sometimes did not. For example, Richardson and Hanawalt (1943), using the Bernreuter, showed that college leaders scored *lower* than nonleaders on introversion while Thurstone (1944) showed that administrators in the U.S. government scored *higher* on introversion than did nonadministrators (as cited in Bass, 1990).

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These kinds of conflicting findings led Stogdill (1948), in his review of the literature on the predictability of leadership effectiveness, to conclude that there was little consistency in the relationship between personality and leadership. While Stogdill concluded that various personality attributes were *inconsistent* in predicting leadership effectiveness, others reached the erroneous conclusion that personality was *not useful*. Stogdill's review resulted in a focus on leadership *behavior*, in what came to be called

the Ohio State Leadership Studies (cf. Fleishman, 1953). Subsequently, the focus on traits in research on personality at work began to wane, except in the world of practice, as will be described later in considering research of the 1950s and 1960s. Stogdill's (1948) review, noting that sometimes dramatic inconsistencies in criterion-related validity existed for the "same" trait but in different contexts, made researchers cautious so that it took almost four decades for the development of meta-analytic (validity generalization) techniques and adoption of the Five-Factor Model of personality to reinvigorate research on personality as a correlate of (especially leadership) effectiveness.

It is useful at this point to note that differences in criterion-related validity across settings for the "same" personality attributes might also have been a function of the definition of leadership used. For example, leadership for college students might connote

very different behaviors from those relevant for defining leadership in government administrators. This means that the prediction of behavior requires that relevant traits be used for the behavior of interest, a topic we will return to when we discuss the bandwidth issue. In brief, this issue concerns the seemingly simple idea that a personality measure (or any measure) is likely to correlate with a behavior or outcome of interest only when it is relevant to that behavior or outcome. The point is that in too many circumstances, a personality measure has been administered and correlated with behavior when careful consideration of the relevance of the measure for the behavior of interest did not exist (Tett, Jackson, & Rothstein, 1991).

### *Interest Measurement: A Dead End?*

Along with the research on personality at work came the development of interest measurement; Strong's (1943) influential book on vocational interests appeared in 1943. Interest measures, like Strong's Vocational Interest Blank (1927) and the Kuder Preference Record (1939), were developed in the late 1920s and 1930s, and these measures advanced the technique called "criterion keying." In this approach to measurement, criterion groupings (e.g., people in different occupations) are identified and then the combination of predictors that maximally differentiate the groups is quantitatively identified. This technique is very useful for choosing among predictors, and it has been applied to biodata, where people's prior histories are examined and "keys" for scoring their histories are developed based on the validity of specific biodata items for predicting outcomes of interest—like turnover and productivity (see Stokes, Mumford, & Owens, 1994).

As early as 1946, some suggestions for the use of such interest measures for employee placement were presented: "In the shifting and transfer that continually occur in any large business or industrial plant, it is good business as well as good industrial relations to consider whenever possible the basic

interests and desires of employees who are being shifted" (Tiffin, 1946, p. 122).

Tiffin (1946) was not sanguine about the future of personality and interest measurement. First, he knew that additional work was required on the validity of the tests. And second, he was cautious about their validity unless examinees were convinced, before the test was administered, "that sincerity and truthfulness in answering the questions will operate to his own eventual advantage in helping the employment manager place him where he is most likely to achieve success" (p. 123). The issue of faking as a branch on the personality testing tree is something to be considered in some detail.

For now, it is useful to speculate on the following question: Why has interest measurement been so much less studied and used than personality measurement in the study of personality at work? The two are seemingly related phenomena (Holland, 1997), though research suggests they overlap less than would be expected (R. Hogan & Blake, 1996). In other words, it is difficult, if not impossible, to find articles on employee interests in prominent applied journals that report work on personality (e.g., the *Journal of Applied Psychology*, *Personnel Psychology*). The answer would seem to be that interest measurement was captured by counseling, career/vocational and school psychologists for use in helping people make career/vocational choices, while personality research and practice, because of early interests by industrial psychologists (Viteles, 1932), took personality research as the predictor of interest. One might almost say that interest measurement branched off in an evolutionary sense from the personality testing movement and became its own field.

But there is an additional possibility for the demise of interest measurement in the study and practice of work personality: prediction of performance at work is poor using interest measures (Campbell, Dunnette, Lawler, & Weick, 1970). A possible reason for this poor prediction is the way interests are studied. Interest measures, like personality measures, are administered to candidates for

specific jobs and then correlated with later performance on the specific job. But consider the fact that interest measures are composed of items that differentiate the people in one occupation or job from another, so the variance in the measures is at the between-job level of analysis. It follows that interest measures might be useful for differentiating the occupants of one job from another but not useful for indicating individual differences among the occupants of a specific job. For the latter to occur, existing interest measures would have to be studied across the occupants of many jobs and/or new interest measures would need to be developed such that the variance is within jobs or occupations rather than between them. Interest testing has been a dead end to date with regard to personality at work.

### *Biodata: Another Tree?*

Biodata research has, for the most part, not been seen to be a part of the measurement of personality; it is seen as another approach to the prediction of behavior at work (Guion, 1998). Thus, there is no argument for biodata as personality; the argument has been that biodata research, which has depended upon the demonstration of empirical relationships, should embed the approach within one or more personality perspectives to lend conceptual meat to the biodata bones. For example, Mumford, Snell, and Reiter-Palmon (1994) argue that personality is the outcome of life experiences so the connection between the two runs from biodata (life history experiences) to personality. The challenge, as they note, is to then make the conceptual links between specific developmental experiences and various personality traits. But the development of empirical keys dominates work on biodata and the connections to personality (and interests), while of some academic interest, have not received much attention to date. Biodata seems to be *another*

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evolutionary tree, though the idea of empirically keying items from both interest measurement and biodata research as an adjunct to the typical, conceptually based personality measure would seem to be potentially attractive for future efforts in the application of personality measures. This issue will surface again in the discussion of future needs in personality research and practice at work.

### Summary

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Paradoxically, personality testing saw a zenith in the 1940s in the application of personality measurement to the prediction of the performance of officers and pilots during World War II (both in the United States and elsewhere), and also experienced an almost complete demise with Stogdill's (1948) critical review of the inconsistencies in the prediction of leadership effectiveness. The latter resulted in a decrease in research on personality by industrial and organizational (I/O) psychologists, who began to focus on leadership behavior. It should not be concluded that practitioners abandoned personality, because this is simply not true. We noted earlier that interest measurement has received very little attention from I/O psychologists and that this area of work has been much less active in I/O than in counseling/vocational, educational, and school psychology; it appears to have

been a dead end in I/O research and practice regarding personality at work. On the other hand, biodata is alive and well in I/O practice though it, too, has had little connection to either the study of personality or the application of personality testing at work.

### The 1950s and 1960s

This era was dominated by work on personality at work by practitioners rather than ac-

ademic researchers, who, as noted earlier, turned to the study of behavior at work rather than the study of personality as the predictor of performance. Perhaps the best example of the work conducted by practitioners concerns what has come to be called the "management progress studies."

Building on the work during World War II designed to develop and validate comprehensive approaches for assessing high-level officers, pilots, and spies, Bray and his colleagues at AT&T began the management progress studies in 1957 (Bray, Campbell, & Grant, 1974; Howard & Bray, 1988). In these studies, very recently hired managers were assessed using cognitive ability tests, personality tests, clinical interviews, and observation of them in simulated work conditions as a basis for rating managerial potential. The data were locked away for eight years, when the participants were reassessed and outcome data on them were collected. The findings revealed significant correlations between overall assessment-center ratings and management progress as indexed by salary level and level achieved compared to the relevant cohort group. The personality predictors of management progress included data based on projective techniques to index such traits as need for achievement (positively related) and dependence (negatively related), and data from personality inventories to assess dominance (positively related) and abasement (negatively related).

The assessment-center approach to the identification of managerial talent is now widely practiced in the United States, and more recently the approach has been used for diagnostic purposes to determine the training and development needs of those assessed (Ployhart, Schneider, & Schmitt, 2006). In Europe, the assessment-center approach has had less impact than in the United States, but in Spain and Portugal their use is higher than in the rest of Europe (Furnham, 2004). In fact, research by Dany and Torchy showed (at least in 1994) considerable variability in Europe with regard to testing in general, including personality testing. Spain and Portugal use more of such tests, especially compared to France, Ger-

many, Sweden, and Norway (Furnham, 2004).

### ***The Need for Achievement: Another Dead End?***

While personality testing research did decline in this era, research relevant to basic personality was being accomplished, especially work on the need for achievement. Thus, about the same time as the AT&T management progress studies were begun, the work of McClelland and his colleagues on the conceptualization and assessment of the need for achievement was also in progress (McClelland, 1961). This program of research was different than the testing work done earlier and to be done later in several ways:

1. The research approach clearly revealed the importance of subconscious effects on how people think.
2. The research approach used a projective technique, the Thematic Apperception Test (TAT), rather than a questionnaire.
3. The research approach revealed the effects of social/environmental variables on the subconscious motivations of people in those environments.

With regard to subconscious motivations triggering thought processes, McClelland showed, for example, that hungry college students write more stories that contain food imagery than students who have not been deprived of food. With regard to the effects of social/environmental forces on subconscious motivations, McClelland showed that the achievement imagery in the stories of a country's grammar school books used to teach children to read correlated significantly with later economic progress of those countries (see Brown, 1965, for a review of the early research).

Combined, these results indicated that subconscious motivations play out in the way people think, that these motivations are imbued in people early in life from such simple tasks as learning to read (the content used to teach reading), and that the way in-

dividuals in a society think becomes reflected in that society's economic progress. This line of research has not been followed closely by either personality researchers (for an exception, see Spangler, House, & Palrecha, 2004), and even practitioners of individual assessment for executives, with few exceptions (Levinson, 1998), apparently have found projective techniques like the TAT of little use (J. Hogan & Hogan, 1998). For example, in his comprehensive treatment of measurement issues in personnel selection, Guion (1998) fails to index either McClelland or projective techniques. While not quite a dead end, this research on the need for achievement, and on the subconscious more generally, has had minor impact on contemporary approaches to the study of personality at work (again, for an exception, see Spangler et al., 2004).

### ***Personality and Organizational Behavior: A New Branch at a New Level of Analysis***

In the 1950s and 1960s, there was a level of analysis shift when some scholars elevated personality to a more inclusive macro construct. The personality referred to was not one concerning individual differences (the prior focus) but to more generic descriptions of the adult personality and the interaction of the typical work organization and that personality. This change was a major shift in emphasis, one that viewed personality as a social construct characterizing populations, and one that conceptualized organizational behavior in terms of the reciprocal effects it had with personality. This perspective stood in stark contrast with the prior presumptions about personality as a direct cause of individual performance and satisfaction.

Two leading proponents of exploring the reciprocal effects of organizations and personality were McGregor and Argyris. In *The*

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*Human Side of Enterprise*, McGregor (1960) argued that the model (cosmology) of people that managers carry in their heads dictates the way they behave toward the employees they manage. He dichotomized the way managers think about subordinates into two categories, Theory X and Theory Y. Theory X is a cosmology that assumes people work only for money, are unmotivated by challenge, and are unwilling to participate in important decisions. Theory Y, on the other hand, is a different cosmology, one that assumes people enjoy work, come to work because they want to and to do a good job, and are motivated to contribute to organizational effectiveness if only given the opportunity. McGregor said that managers of the day were thwarting adults in their attempts to achieve self-actualization (after Maslow, 1954) and contribute to organizational effectiveness. When managers allowed Theory X to dominate their thought processes about employee motivation, it logically followed, he argued, that employees responded in ways that met managers' expectations of their behavior. That is, they did not seek to contribute to the organization's effectiveness, they were lazy and insolent, and so forth.

Argyris (1957) wrote a book, *Personality and Organization*, in which he was quite blunt in his portrayal of the cosmology of management: management treats adult workers as if they are children, by structuring their roles, simplifying their tasks, closely monitoring their every activity, and not permitting them to have a voice. The outcome is predictable: workers will seek increased wages from management because this is the only reward management is willing to provide and workers will come to work late, be absent, and perhaps even sabotage the assembly line as ways of substan-

tiating management's low expectations of them.

We can ascribe the label "Founders of Organizational Behavior" to Argyris and McGregor. Their focus, and the focus of others to follow (e.g., Katz & Kahn, 1966; Likert, 1961, 1967), on the organizational attributes of the workplace as the cause of people's behavior and affect, resulted in a major additional new branch on understanding behavior at work. This new branch of understanding was that behavior resides in the context of the worker and not so much in his or her personal attributes.

### *Decimation of the Individual Differences Personality Construct?*

At the same time that organizational scholars were branching away from individual differences in personality to focus on contextual causes of behavior, a similar trend was emerging in industrial psychology and in personality psychology in general. In both fields, the viability of the study of personality as an important individual differences variable was called into question. With regard to the workplace, Guion and Gottier (1965) did a review of the literature and reached the following conclusion:

It is difficult in the face of this summary to advocate . . . the use of personality measures in most situations as a basis for making employment decisions. (1965, p. 160)

Many readers may be familiar with that quote but not familiar with their additional conclusion:

A homemade personality or interest measure, carefully and competently developed for a specific situation, is a better bet for prediction than is a standard personality measure with a standard system of scoring. (1965, p. 159)

This quote refers to the potential for the development and use of situationally specific criterion-focused personality measures.



Such measures can be developed in two ways, one being the criterion keying technique described earlier in discussing interest measures and biodata. A second approach has a more conceptual base in which the personality constructs assessed are conceptually relevant for the criterion outcomes of interest. In the former case, Nash (1966), for example, developed and validated a specific scoring key for Strong Vocational Interest Bank (SVIB) items for identifying effective managers. Later work with that same key by others (Johnson & Dunnette, 1968) revealed not only significant cross-validation effects but also considerable stability over time in the scores of those assessed. In the latter case, inconsistencies in the literature on personality as a correlate of leadership have been shown to be at least partially accounted for by a lack of correspondence between the specific personality measure being used and the outcomes of interest in a setting (e.g., Bentz, 1990; Ones & Viswesveran, 2001; Tett et al., 1991). In brief, when the personality constructs assessed either are not known to correlate with the criterion (through criterion keying) and/or are not conceptually appropriate for the criterion, criterion-related validity is not likely.

Nevertheless, research on personality at work largely came to a halt, likely pushed finally into a (fortunately temporary) hibernation by Mischel's critical review of personality and personality testing in his 1968 book, *Personality and Assessment*. Mischel argued that personality made no contribution to understanding behavior, that situations accounted for all of the important variance in behavior, and that, therefore, people's behavior from setting to setting is inconsistent and therefore unpredictable. By the end of the 1960s, the study of personality was "seen as the domain of a little group of rational technicians who specialize in criticizing each other's measure of the insignificant, then conclude that the existence of the obvious is doubtful, then doubt whether the study of personality is worthwhile" (Helson & Mitchell, 1978, pp. 579–580).

## Summary

The 1950s and 1960s saw the relative demise of the study of personality at work by academics, while at the same time such work continued in the world of practice (see Campbell et al., 1970, for a review). Indeed, in academe, there was a significant shift in emphasis from a focus on individual differences as the cause of behavior to the situation as the cause. This contextual view of the causes of behavior can be seen as a branch that grew vigorously and became modern organizational behavior (Smith, Schneider, & Dickson, 2006).

## The 1970s

### *The Interactional Psychology Branch of the Personality Tree*

Stimulated largely by Mischel's (1968) attack, a then relatively small branch (twig?) of interactional psychologists wrote a number of retorts to the notion that only context determines behavior. A key paper in this regard is the one by Bowers (1973) in the *Psychological Review*. One of Bowers's central arguments was that Mischel's review was dominated by conclusions reached from laboratory studies in which personality measures were administered to participants without much thinking about whether or how they might be related to the dependent variable being studied. In the laboratory, he further argued, there is a lack of competing stimuli since experiments are designed to artificially rule everything out but the effects of the independent variable. The situation dominates in the lab, and the lack of an effect for personality is not surprising. Importantly, Bowers noted that experiments randomly assign participants to treatments—but that is not the way the real world works. In the real world, he argued, people choose themselves in and out of set-

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tings. This observation was important because it called into question a basic principle of experiments: random assignment of people to treatments. That is, experiments fail to create conditions like the real world precisely because in experiments people are randomly assigned to treatments and in the real world they are not.

In two books, Endler and Magnusson (1976; Magnusson & Endler, 1977) cumulated the writings of interactional psychologists in ways that stimulated research on both personality and situations and their

likely joint effects on behavior.

Papers that have had a lasting impact, like those by Block, Epstein, and Mischel himself, appeared in both volumes with the original (Mischel, 1973, 1976) and adaptations (Mischel, 1977) of his early conceptualization of “strong” and “weak” situations.

This idea that personality flows in weak situations was important because it acknowledged a flaw in Mischel’s own earlier (1968) review of the literature. That review focused on laboratory experiments, which are inherently strong situations. Block (1976) wrote that the apparent inconsistencies in the prediction of people’s behavior from setting to setting were explainable conceptually by a lack of correspondence between predictor meas-

ures and criterion outcomes. Epstein (1977) showed that the same inconsistencies were likely a function of a methodological artifact, specifically the failure to collect data over enough opportunities to produce reliable criterion data.

The emergence of this branch of the personality tree revived academic interest in the study of personality, not by denying the importance of the situation but by integrating the context and the personality into a new research paradigm. Interactional psychology itself did not have a big impact on the practice of personality at work or on research by industrial psychologists (for an exception,

see Schneider, 1983). But this new paradigm eventuated in renewed interest in Murray’s (1938) early ideas concerning P-E fit research (Kristof, 1996).

### *The New Vigor of the Five-Factor Branch*

The 1970s also saw concerted effort being expended on Allport’s (1937) original idea of focusing on language-based (lexical) descriptors of personality as a basis for the measurement of personality traits. Over the intervening years, numerous researchers working with the original and modified lists of common language descriptions of personality submitted data collected with those lists to factor analysis. Over time, as Goldberg (1971, 1981) summarized, similar factor structures emerged, and there began to be some consensus over the number of factors, or traits, necessary to describe human personality.

The paradox is that with all of this academic work in basic interactional and personality psychology and continued attention to personality in the practice of personnel selection, little academic research on personality relevant to the workplace was conducted. The cumulative effects of Stogdill’s (1948) early review, the later review by Guion and Gottier (1965), and the organizational orientation of Argyris (1957), McGregor (1960), and others such as Herzberg (1966), Likert (1961, 1967), and Katz and Kahn (1966), in the aggregate produced an organizational orientation on behavior and affect at work. As noted earlier, Stogdill’s review resulted in a switch from a focus on personality in understanding leadership to a focus on leadership behavior. Herzberg and the Argyris/McGregor combination focused efforts on job design and superior-subordinate relationships. Katz and Kahn and Likert presented the systems vantage point on organizational behavior, ignoring personality completely. The era of motivation as a cognitive process (Vroom, 1964) rather than as one associated with personality emerged full blown. And, finally, academic researchers apparently became convinced that the situation was the determinant not only of behav-

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ior, but also of job satisfaction (Salancik & Pfeffer, 1978), too.

### Summary

The 1970s was a paradoxical time for work and personality. At the same time, the following were appearing to challenge for dominance in understanding behavior:

The situation determines behavior (Mischel, Argyris, McGregor).

- The situation and personality jointly determine behavior (Magnusson & Endler).
- An agreed-upon set of traits determines behavior (Goldberg).
- A focus on individual differences in personality is a useful predictor of behavior at work (industrial psychology practitioners).

There were, then, numerous branches to the personality tree, with some having more relevance to the future of personality research and practice than others.

### The 1980s

#### *The Main Branch for the Future of Personality and Work: The Five-Factor Model*

By the 1980s, it was sufficiently clear to many basic personality researchers (e.g., Goldberg, 1981) that five hierarchically derived factors accounted for much of the variance in lexical descriptions of people's personalities. The five factors, commonly now called the Five-Factor Model (FFM) or Big 5 model of personality, are summarized below (though the labels of the factors can vary quite a bit; see Guion, 1998):

- Neuroticism (or emotional stability)—insecure, high anxiety, emotional
- Extraversion—sociable, assertive, talkative, ambitious, energetic
- Openness to experience—curious, intelligent, imaginative, independent
- Conscientiousness—responsible, persistent, planful, achievement-oriented

- Agreeableness—good-natured, cooperative, trusting, likeable, friendly

The conclusion and the measures that appeared to tap various facets of the model (e.g., Costa & McCrae, 1985, 1992) appealed to practicing I/O psychologists and led to a resurgence of research using personality inventories based on the data collected in industry. This resurgence occurred in both the United States and Europe, culminating in the influential reviews of the U.S. literature by Barrick and Mount (1991) and in Europe by Salgado (1997). These reviews resulted in considerable understanding of the predictive validity of the FFM for behavior and attitudes at work—as well as considerable disagreement over the universality of the dimensions.

#### *The P-E Fit Branch of Personality Psychology*

In the mid-1980s, I/O psychologists grasped the import of interactional psychology and began exploring the issue via the concept of person-environment (P-E) fit. Borrowing heavily from Holland's (1973) early work on vocational choice, the Minnesota Work Adjustment Project (Lofquist & Dawes, 1969), and French's (French, Rogers, & Cobb, 1974) work on stress, a number of papers appeared showing that it was the fit of person to a setting that yielded insight into at least job satisfaction and employee turnover, and perhaps task performance, too (Muchinsky & Monihan, 1987; Schneider, 1983; Terborg, 1981).

Also based on Holland's work and interactional psychology, especially Bowers's (1973) paper, Schneider (1987) derived the Attraction-Selection-Attrition (ASA) model of organizational behavior. He proposed that people are attracted to, selected by, and stay with organizations they believe they fit and whom the hiring organizations believe fits

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them. Bowers's early paper was important to Schneider, as he proposed that people are not randomly assigned to work organizations but that they and organizations both seek good fit. Schneider also proposed that such good fit is not good in the long term for organizations because good fit leads to satisfaction and complacency when it is motivation and tension that produces the required adaptations to changing environments.

There are numerous anecdotal examples of such organizational decline that may be attributed to the homogeneity of personality in organizations, but these are too many to comment on here (but see Schneider & Smith, 2004, for examples). In the original presentation of the ASA model, Schneider also proposed that organizational culture—the values, beliefs, and norms that characterize organizations—emerge from the personality of the founder and the like-types he or she attracts to the organization (see also Schein, 1992).

Schneider's logic was as follows: In the early life of an organization, the founder implements his or her personality on the ambiguous stimuli the environment presents to him or her as decisions need to be made; the new organization is thus conceptualized as a giant projective test. Because the organization is new, the situation is weak (Mischel, 1973) in that the "right" behavior is not prescribed, so the personality of the leader takes over to dictate decisions with regard to strategy, structure, and behavior.

The ASA framework is one of few attempts in I/O psychology to conceptualize whole organizations as the unit of analysis using individual differences personality constructs. Thus, much as Argyris (1957) and McGregor (1960) wrote about organizations from the perspective of the adult personality, Schneider writes about organizations from the perspective of the modal personality in them, that modal personality being the out-

come of the ASA cycle. He further proposed that the eventual structure, strategy, and culture of organizations are determined early in their life and that these persist over time because the founder continues to attract, select, and keep people who reflect his or her basic personality. It follows from this logic that organizations will likely be homogeneous with regard to the personality of the people in them, and there is evidence, reported in some detail later, to support his proposal (Schneider & Smith, 2004). Schneider's ASA cycle is important because it, like interactional psychology, attempted to incorporate both personality and situation in a common framework.

### *Job Satisfaction: Context or Personality?*

The 1980s also saw a return to the idea that job satisfaction is at least in part a personal worker issue and not just due to situational characteristics. Staw and his colleagues, in a series of studies in the 1980s, showed that one component of job satisfaction is an individual's predisposition, which gets established relatively early in life and persists across decades, jobs, and job changes (Staw, Bell, & Clausen, 1986; Staw & Ross, 1985). Staw located a database on people assessed as teenagers and then periodically for up to 35 years later. The early assessments of the teenagers included evaluations of emotional well-being (what later has come to be called positive and negative affectivity or neuroticism). When Staw correlated those data with later reports of job satisfaction, he found consistent and significant relationships even when people changed jobs! This outcome led him to conclude that job satisfaction is at least partially a personal characteristic (see Staw, 2004, for a review of this research).

### *Summary*

The 1980s began a return to the importance of personality as a cause of work behavior, both individual and organizational. The pre-1940s emphasis on individual differences in personality emerged strongly in research at

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the same time academic work in business schools focused on the situation through organizational behavior and human resource management. Thus, the emergence of business schools with human behavior emphases in the 1960s and 1970s downplayed the role of individual differences in personality and promoted the importance of management and leadership, reward structures, job design, and so forth as the important issues (Smith et al., 2006). For the most part, psychologists retained the individual differences and personality line of research and practice and the influence of situational issues on that study decreased markedly with the 1990s and later, solidifying the issues that emerged in the 1980s as the dominion of personality at work.

## The 1990s to the Twenty-First Century

### *Job Satisfaction as Personality*

In the 1990s, the research program on job satisfaction as a personal characteristic became solidified through additional studies replicating Staw's early work (e.g., Steel & Rentsch, 1997) and through accumulated evidence from three additional research programs:

- The twins-reared-alone studies by Bouchard and his colleagues (Bouchard, Lykken, McGue, Segal, & Tellegen, 1990) at the University of Minnesota, in which they showed the apparent heritability of job satisfaction. Identical twins reared alone—and perhaps in different countries—were shown to have similar personalities and similar levels of job satisfaction.
- The research on positive and negative affectivity (Watson & Clark, 1984) revealing significant correlations with job satisfaction and subjective well-being (Diener, Sandvik, & Pavot, 1991). The research on positive and negative affectivity also triggered considerable interest in mood both in and out of the workplace. For example, George and Bettenhausen

(1990) showed that sales groups in department stores with higher positive affectivity in the aggregate had superior sales to those with a more depressed aggregate mood.

- The research on core self-efficacy by Judge and his colleagues (Judge, Locke, & Durham, 1997) revealed that a combination of self-esteem, generalized self-efficacy, neuroticism, and locus of control influence the way people perceive situations—and the satisfaction derived from them (Judge & Bono, 2001).

Collectively, the work by Staw, the twins-reared-alone studies, the work on positive and negative affectivity, and the work on core self-efficacy suggested a clear connection between the personal and personality attributes of people and their subsequent well-being and satisfaction. Though there remain doubters with regard to these relationships (Davis-Blake & Pfeffer, 1989), the findings indicate a return for the role of personality in worker adjustment and satisfaction that Viteles (1932) and Fisher and Hanna (1931) had noted decades earlier. More specifically, findings with regard to the role of neuroticism/negative affect and job dissatisfaction recalled the earlier work by Bernreuter (1931) and Thurstone (Thurstone & Thurstone, 1929), both of whom had called attention to neuroticism in their early personality inventories.

### *The P-E Fit Branch of Personality Psychology*

The 1990s also saw the flowering of P-E fit research with significant reviews of the literature emerging and more detailed conceptualizations of P-E fit with regard to person-job fit, person-group fit, and person-organization fit (Kristof, 1996). Such research consistently yielded the finding that higher levels of job satisfaction and lower levels of

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turnover were associated with good fit (Kristof-Brown, Zimmerman, & Johnson, 2005)—as Murray had predicted 60 years earlier—and occasionally to job performance as well (B. J. Hoffman & Woehr, 2006).

There were considerable advances in understanding that person and environment combine in numerous ways, all of which may fit under a generic P-E umbrella (e.g., Walsh, Craik, & Price, 2000), but only some of which concern the issue of fit. So P-E fit

and P X E interactions are not the same concept, nor do the same analytic techniques apply. P-E fit concerns an index of overlap (convergence, fit) of P and E, while P X E interaction refers to the degree to which P moderates the relationship between E and outcomes or E moderates the relationship between P and outcomes. In fact, as Terborg (1981) showed, there are at least ten different ways to conceptualize and study the relationship between a person and the environment in which they exist; see Judge and Kristof-Brown (2004) for a recent review.

Just as two simple examples, consider the difference between “additive interactions” and “reciprocal effects.” Additive interactions refer to the fact that person attributes and situational attributes combine additively to produce the behavior of interest. For example, suppose there is a significant relationship between ability and performance and a significant relationship between the difficulty and specificity of goals and performance and that ability and goal attributes combine additively to predict performance. For a multiplicative interaction, ability or goal attributes would be moderators, but this is not the case and there is no fit issue either.

The issue of reciprocal effects implies that people affect situations, and situations also affect people reciprocally over time. An example here would be the work of Kohn

and Schooler (1983), who show that people change the jobs at which they work at the same time the jobs change the people who work at them; there is no P-E fit issue and no statistical interaction.

Part of the confusion over what is and is not interaction was stimulated by Lewin’s idea that behavior is a function of person and environment. Some interpreted this statement to mean person and environment in statistical interaction, but Lewin never said that. To be precise, he (Lewin, 1935, p. 73) wrote: “From a certain total constellation—comprising a situation and an individual—there results a certain behavior, *i.e.*,  $(E, P) \rightarrow B$ , or in general  $B = f(P, E)$ ” (italics in the original). Readers should note that the comma between P and E is just as Lewin presented it, leaving open the form of interaction to be studied.

Within P-E fit research in particular there emerged new procedures for assessing fit. In the 1950s, Cronbach and Gleser (1953) had shown that cumulating the squares of difference scores in matching profiles was the best way to study fit, but Edwards (1991, 1994) showed that this method omitted important information in studies of the effects of fit on the criterion. This information concerned the issue of the relative importance of fit to the prediction (*i.e.*, if one only looks at  $d^2$  squared, one fails to examine the main effects contributions to behavior of the person variables and the main effects contributions of the situational variables—as well as their interaction). The technique he developed, polynomial regression, is now the preferred one for assessing fit.

Research on Schneider’s (1987) ASA model also was accomplished by testing a fundamental proposition in the model—namely, that over time there would emerge homogeneity of personality within organizations as both parties attempt to achieve good fit. Schneider, Smith, Taylor, and Fleenor (1998) studied almost 13,000 managers working in 132 major U.S. organizations, all of whom had taken the same personality inventory (the Myers-Briggs Type Indicator). Using a multivariate version of canonical analysis (MANOVA) for assigning people to

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groups, their results showed that both organization (the company in which people worked) and industry (the larger grouping to which each company belonged) had main effects on personality, with the former effect much larger than the latter. In other words, personality data for the managers were useful in distinguishing (1) in which company they worked and (2) in which industry they worked. In a second project, Schaubroeck, Ganster, and Jones (1998) studied almost 700 people in five organizations, the sample being composed of people in many different occupations and levels in the organization. They revealed a main effect for organization and a main effect for occupation on personality, suggesting that people are homogeneous both within organizations and within occupations, a finding supported by both Holland (1973, 1997) and Schneider (1987).

An intriguing analysis by Schaubroeck revealed that all relationships found were stronger when people likely to leave their employing organization were dropped from the analyses. This means that homogeneity was stronger when those who would not stay were dropped, as hypothesized in the ASA model.

The ASA hypothesis that leader personality has effects on organizational culture also received attention. Miller (Miller & Droge, 1986; Miller, Kets de Vries, & Toulouse, 1982) and his colleagues did a series of relevant studies in the 1980s. In one study, they administered Rotter's measure of internal control to the CEOs of 33 business firms for which they also had organizational culture-relevant data. The findings revealed that firms described as proactive, innovative, risk taking, and having a future orientation were also firms that had CEOs with higher I-E control scores. Thus, CEOs who attribute outcomes to effort and ability rather than to luck and circumstances lead the culturally more proactive firms. In addition, as in the Schaubroeck et al. (1998) study, Miller et al. showed that relationships were stronger the longer the CEO had been in his or her job.

In a more recent study, Giberson, Resick, and Dickson (2003) studied the personalities

of the CEOs of 32 businesses using a FFM measure of personality and showed that:

- leader agreeableness predicted group-oriented culture;
- leader emotional stability predicted developmental cultures; and
- leader extraversion predicted hierarchical cultures.

A similar conceptualization of the effects of personality in the aggregate on organizational culture was proposed by Gray (1987, 1993). Whereas Schneider's ASA model has been the central one for research on aggregate personality in the United States, Gray's model has been pursued in Europe. Indeed, Furnham (1998) has shown that organizations must be sensitive to the kinds of employees that characterize their firms with regard to the appropriateness of different kinds of reward systems, with some such systems working more effectively with introverts and others working more effectively with extraverts.

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### ***The Main Branch for the Future of Personality and Work: The Five-Factor Model***

In 1991, Barrick and Mount cumulated many studies of personality validity by using the FFM conceptual framework for a meta-analysis of the prediction of performance based on personality measures. Because practitioner-based work and some academic I/O psychologists had continued to pursue personality as a correlate of performance, even in the face of the attacks of the 1960s and 1970s, there were numerous studies available. Barrick and Mount located a universe of studies of personality and performance and then coded the personality measure(s) used in each study for the FFM dimension(s) they represented. In this way, they were able to use the FFM as an organizing scheme for the various personality measures used in such

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studies, thereby capitalizing on a structure for many studies not previously available to, for example, Stogdill (1948) and Guion and Gottier (1965). The results of their meta-analysis revealed that the FFM had consistent and significant effects for task performance, with conscientiousness being the most consistent and strongest correlate. Subsequent reviews of the personality literature using similar tactics for coding the studies into the FFM revealed similar effects. One meta-analysis of European studies by Salgado (1997) had similar findings: conscientiousness is valid across a broad range of criteria and countries.

Though the FFM was shown to have validity for predicting task performance, it has not received universal acclaim. Numerous personality researchers, like Block (1995) and Hough (1992) in the United States and Eysenck (1990) in Europe, have critiqued the FFM for some or all of the following (Smith & Schneider, 2004):

- Its comprehensiveness—simply put, there are important personality constructs missing—constructs like honesty/integrity, humor/wit, and manipulativeness.
- Factor heterogeneity—that the five factors subsume aspects of personality that do not fit well together. For example, conscientiousness has the presence of both “responsible” and “achievement oriented,” and when combined these yield a zero correlation with the inclination to escalate behavior, while alone each of them correlates significantly with such behavior in opposite directions (Moon, 2001).
- The atheoretical nature of the FFM—it is derived from statistical analyses unfettered by theory—which usually is fine for practicing I/O psychologists since it works but is not fine for academic researchers who want understanding.

- The level of validity revealed for even conscientiousness is modest (in the .20s at best) and such findings do not warrant the claims that are being made for how important personality is at work (Schmitt, 2004).

Of course, it is somewhat easy to critique—that is mostly what academics are trained to do. On the positive side, the FFM permits the accumulation of data from many different sources for meta-analyses that in prior reviews were not possible. For example, as briefly noted earlier, in the early reviews by Stogdill (1948), Guion and Gottier (1965), and Mischel (1968), so many different labels were used for the definition of traits that it was almost impossible to accurately classify what was being studied across various research efforts. With the FFM, the traits used in a specific study can be categorized into the FFM dimension they represent, and then these data can be submitted to meta-analysis. Barrick and Mount (1991) and Salgado (1997) did this analysis for task performance, and Judge and his colleagues more recently have done this for predicting leadership (Judge, Bono, Ilies, & Gerhardt, 2002) and job satisfaction (Judge, Heller, & Mount, 2002). In all cases, significant and consistent effects have been shown. Personality as an individual differences construct is alive and well at the end of the 1990s.

### Summary

The 1990s, building on what happened in the 1980s, saw a firm foundation emerge for the study and practice of personality at work: job satisfaction is at least in part a function of predispositions/personality; P-E fit is an important approach to understanding job satisfaction, turnover, and possibly performance at work; and the FFM provides a framework and a set of possible tests for cumulating evidence across studies and revealing validity of the FFM attributes for predicting performance, including leadership effectiveness. What is interesting from an evolutionary standpoint is the resurgence of these issues that emerged so early in the life of



personality at work. Viteles (1932) proposed a relationship between personality (worker maladjustment) and job satisfaction, May and Hartshorne (1926) proposed the importance of conscientiousness (consistency) as a correlate of behavior at work, Murray (1938) addressed the issue of P-E fit as an important correlate of positive affect at work and in life, and Allport (1937) suggested that a lexical approach to defining and measuring personality traits might prove useful!

There obviously has not been a smooth and direct evolutionary line from there to here; the evolution to the present state has been interesting and at times exciting, with different approaches vying for dominance. There have been apparent dead ends (interest measurement), unrelated but allied programs of research and practice (biodata), the development of an entirely different approach to understanding behavior and job satisfaction at work (organizational behavior), and for many years, some developments among practitioners went unnoticed by academic researchers until the solidification of the FFM framework of personality. On this latter issue, one might almost claim that stealth has served the field well because practitioners kept alive the focus on individual differences in personality, and they did it one company at a time and revealed context-specific validity (e.g., Bentz, 1990).

We turn to this strong research/practice branch of the field next.

### **On to the Future: Implications for Research and Practice**

The study and practice of personality at work, as shown in the present review, have revealed continual interplay that to this reviewer's mind has served both facets of the field very well indeed. Thus, in the evolutionary story to this point, it is clear that in different eras practitioners retained the individual differences focus when researchers appeared to wander off into the context and situation for the causes of behavior and satisfaction. Similarly, while practitioners remained steadfast in their pursuit of trait predictors that may have lacked a solid

conceptual underpinning, researchers were developing the FFM that proved not only to have validity, but also provided a conceptual base for common language and understanding both for practitioners and their clients.

In what follows, then, the goal is to revisit issues that might profit from new research and to introduce practitioners to other relevant approaches and issues that deserve their attention.

### **Can the FFM Be Improved?**

Interest measurement has been a dead end in personality at work, and biodata is a separate branch altogether. But these two approaches share a method in common that might prove useful in further development of the FFM: criterion keying. As described earlier in the article, criterion keying is a method by which specific items in a test are retained because of their known relationship to a criterion outcome of interest. In the case of interest measurement, the criterion of interest is the occupation to which an individual belongs; in the case of biodata, it is whatever the criterion of interest is, be it turnover, job performance, or the like. In personality testing, the current orthodoxy is some measure of the generic FFM designed to capture the domain of personality generically and not specifically with regard to the workplace.

It is well known, however, that the bandwidth of the measure must match the bandwidth of the outcome if significant validity is to be the result (Tett et al., 1991); that is why interest measures and biodata have validity for what they do best. In the words of Stewart and Barrick (2004, p. 63):

Because the behaviors required for work success vary across situations, an important element of the work situation is thus the specific behaviors that

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are required for high performance in that setting. This suggests that certain traits are relevant only in situations where behaviors linked to those traits constitute high work performance.

In other words, as Guion and Gottier (1965) noted many years ago, measures tailored to and validated in specific situations are likely to reveal significant validity. If so, the conclusions attached to Stogdill's (1948) review are shown to be clearly erroneous.

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This suggests that application of the generic FFM measure(s) across many different situations likely yields an underestimate of the validity of the measure for any one situation. That is, if (a) the behaviors required by a setting are not carefully identified and (b) the FFM measure used is the generic one, then it follows that what Mischel (1968) reported many years ago to be true will still be true: the personality measure will have no validity. Researchers seem to have fallen into the FFM trap, assuming it is the be-all and end-all of research on personality when it likely is a measure that is too broad in its implications for many specific behaviors of interest (R. Hogan, 2004). The following proposition is likely true: Unless the behavior to be predicted is specifically known and unless the personality measure used has a known relationship (conceptually and empirically) to that behavior, then the validity is likely to be low to nonsignificant. Any practitioner using personality measures for selection and/or placement purposes must keep this proposition in mind and do everything possible to ensure that the behavior(s) of interest are known and that the traits being assessed are relevant for those behaviors.

A simple rule to follow would be that unless the personality test items contain words like "at work" or "on the job" as modifiers, the chances are reduced that validity for

such a measure will exist for behavior at work. For example, a typical personality test item might be "I get things done when I am supposed to." Suppose the item was changed to "I get things done at work when I am supposed to." Would the validity for this item be stronger? Yes. Schmit, Ryan, Stierwalt, and Powell (1995) changed items on a generic personality test to include the phrase "at work" and found a dramatic increase in validity. In addition, Hunthausen, Truxillo, Bauer, and Hammer (2003) extended this work and showed that when using generic personality inventories, validities were the same as those in meta-analyses, but when using "at work," the validities were two to three times stronger. Researchers now need to go one step further and move beyond the FFM as a source of potential predictors because the FFM likely misses numerous important personality attributes (R. Hogan, 2004). By using criterion-keying approaches to important classes of such behaviors, they can provide practitioners with important insights for use in making valid hiring decisions.

### *Is the Subconscious Worth Further Pursuit?*

Cognitive science has had a profound influence on most areas of psychology, including social psychology with the social cognition movement, but not much of an influence on personality (for an exception, see Mischel, 1973), especially personality testing. Recently James (James & Mazerolle, 2002) embarked on a research program called "conditional reasoning." The conditional reasoning approach to personality assessment assumes that people behave in accordance with the way they interpret events that happen to and around them. When people interpret events in terms of achievement motivation, then they tend to be more achievement-oriented in their behavior; when they interpret events in terms of fear of failure, they tend to avoid situations where they might have to take even a modest risk. James has designed sets of items that tap the inclinations of people to interpret events from an achievement

or fear of failure perspective that reveal consistent predictive validity for relevant behavior. He calls these “framing proclivities” or the subconscious schemas that people hold about ways to explain—or rationalize—events.

It is easy to recognize McClelland’s work on need for achievement in James’s work. Both propose that people carry subconscious motivations and that these motivations help them frame explanations for what they observe. James’s work is exciting on many grounds, not the least of which is the conceptual integration of subconscious motivation with the cognitive schema and framing literatures for the assessment of personality.

There are numerous reasons why subconscious conceptualizations of personality and motives have not been welcomed by applied psychologists. A prominent reason concerns findings that projective techniques for assessing personality (like the TAT used for assessing need for achievement) lack sufficient reliability. James’s work, employing established objective testing techniques, would seem to answer this criticism, and some of his recent research suggests that this new approach to testing the way people rationalize outcomes has validity for the prediction of performance (James & Rentsch, 2004) and may reduce faking on personality tests (LeBreton, Barksdale, Robin, & James, 2007). Practitioners interested in predicting the degree to which newcomers will approach achievement situations positively or with fear of failure might profit from exploring this new branch of personality testing, especially when a proactive personality may be required (Major, Turner, & Fletcher, 2006).

Speaking of the proactive personality, it is surprising how little research exists on personality as a predictor of the class of behaviors that might be called “motivated behavior.” Thus, conceptualization of the trait correlates of such behaviors as persistence, adaptability, proactivity, and engagement are rare, and tapping into subconscious motives may yield insights into these domains with positive conceptual and practical consequences. Perhaps changing the label from “subconscious motivations” to “implicit cog-

nitions,” as James and his colleagues do (LeBreton et al., 2007, p. 1), would be less threatening to practitioners and yield insights and applications that meet client needs for improved understanding and prediction of motivation at work.

### *Is There a Need for Process Models of the Personality-Behavior Link?*

It is so simplistic to think that personality gets reflected directly in outcomes (like sales, production output, and customer satisfaction), yet that is the way the validity of personality measures has been studied—and researchers are as guilty as consultants. This is true even when the bandwidth similarity of the predictor and the criterion are taken into account—and for James and his colleagues as well. So, a personality inventory is administered to a group of leaders and the scores are correlated with the group’s output directly, hoping for a significant relationship. Again, it is no wonder that so many validity coefficients for personality data look weak.

For example, suppose it was proposed that leader personality correlates with leader behavior and leader behavior creates specific kinds of climates for workers, who in turn behave in particular ways to produce outcomes. Obviously, more than the leader’s personality predicts his or her behavior, and equally obviously more than his or her behavior determines the climate for subordinates. Finally, more than the climate created for subordinates predicts their cumulative behavior and outcomes. Schneider, Smith, and Sipe (2000) propose precisely such models for the study of personality at work and argue that leader personality, for example, should be validated against their behavior and the climate or culture they create for subordinates, rather than expecting a direct

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relationship with team outcomes. Researchers must be more careful about defining the behavior they wish to understand and predict rather than the outcomes associated with such behaviors, and practitioners must be careful about their expectations for the outcomes personality measures can directly versus indirectly predict. The same

caution applies apparently to the use of P-E fit data for the prediction of performance (Arthur, Bell, Villado, & Doverspike, 2006).

A new meta-analysis of the personality prediction literature might focus on differences in criterion-related validity when the criterion of interest is behavior versus when the criterion of interest is some consequence of behavior. The hypothesis would be that the same kinds of results found with the bandwidth literature would appear; when the criterion is behavior, personality will be significantly more strongly related to the criterion than when an outcome of behavior is the criterion.

### ***Do Individuals' Personalities Have Relevance for Team Effectiveness?***

In an age of teams at work, it would seem useful to conceptual-

ize group composition models where the group composition variables include the personality attributes of group members (Guion, 1993). As Moynihan and Peterson (2004) hypothesized, group heterogeneity in terms of personality might yield some tension in the group but also innovation in the way tasks, especially complex tasks, are accomplished and goals are reached. This tension would be hypothesized to produce in the long run outcomes superior to those from more homogeneous groups as would be predicted based on Schneider's (1987) ASA model. Evidence by L. R. Hoffman and Maier (1961) supported this hypothesis as early as

1961, and there now is considerable evidence suggesting that group heterogeneity on personality can lead to superior group outcomes compared to group homogeneity—although homogeneity of personality leads to warmer interpersonal relationships; see Moynihan and Peterson (2004) for a review.

This research is at an early stage of development and must be linked directly to the demography literature, where similar kinds of predictions have been made and validated (Jackson, Joshi, & Erhardt, 2003). Very little research links personality composition with demographic composition in work teams and the relative contribution of both to team behavior and team outcomes, yet such research seems crucial since both have consequences. For example, Harrison, Price, Gavin, and Florey (2002) assessed both gender and attitudinal diversity in work teams and showed that gender diversity mattered early in newly formed groups but that, over time, the underlying attitudinal diversity was more important to team functioning. More research like this is desperately needed, the hypothesis being that the Harrison et al. results would be replicated. The rule for practitioners appears to be that if teams is the level of analysis of interest, then the composition of the team with regard to both demographic and personality attributes must be considered, because both influence how the group functions and the likely team outcomes (Moynihan & Peterson, 2004).

### ***Is Personality Also Relevant at the Organizational Level of Analysis?***

For a period of time bounded by approximately 1960 and 1980, individual differences in personality at work were not much studied by researchers; they were in hibernation, being only visible among practicing I/O psychologists. This era might be called the Age of Organizational Behavior, but it might also be called the Era of Situationism (Bowers, 1973) in the extreme. Situationism holds that behavior and affect at work are situationally determined and that individual personality is irrelevant.

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More recently, as has been shown in this article, personality at work has returned to being dominated by the individual differences model, and personality in the aggregate has not often been studied. But human resources practitioners are interested in the aggregate personal attributes of their firm's human resources because they are concerned with the aggregate behavior needed to keep the organization effective. In a sense, practicing managers and I/O practitioners have more faith in the usefulness of people's personalities in the aggregate than do researchers.

When studies are accomplished, for example, of organizational climate and culture, the focus is on organizational attributes like organizational structure, or the myths and stories people recite, or pay systems and so forth, but no attention is given to the aggregate individual attributes—the personalities, for example—of the human resources (Schneider et al., 2000; Schneider & Smith, 2004). This is quite narrow thinking, because the aggregate attributes of the people in an organization are as much a part of the organization as anything else and they likely determine the strategy, structure, and culture of the organization.

For example, Ployhart, Weekley, and Baughman (2006) showed that higher levels of some personality attributes at individual, job, and organizational levels of analyses are related to both satisfaction and performance *at all of those levels of analysis*. In other words personality in the aggregate is as important as individual personality for understanding unit and organizational morale and performance. Recent calls by academics for inclusion in research publications of contextual material to inform readers about the situational characteristics of the study (e.g., Johns, 2001; Rousseau & Fried, 2001) as a correlate of behavior in organizations might revisit their calls and include personality attributes of the sample as well!

A guideline for practitioners would be to pay attention to the nature of the modal personalities being hired into jobs and into the organization as a whole, because it is that modal personality that later will dictate reactions to environmental change and thus de-

termine the future viability of the organization (Aldrich, 1999). Hiring for the world of today can produce a certain stultification of personality and make the identification of the need for change problematic.

## Summary and Conclusion

The evolution of personality at work, both its study and its practice, has clearly come almost full circle from the nascent beginnings a century ago. This research has been a sometimes steady-state pattern punctuated periodically by change, and as is clear from the review, practitioners have not varied much in their approaches. In the worlds of academe and research, the equilibrium experienced among practitioners has been punctuated on several occasions, beginning in the late 1940s and then throughout the 1960s. During this period, researchers drifted from a focus on individual differences to a focus on the situation for causal explanations of behavior and affect. It was not until the 1970s school of interactional psychology and P-E fit and then the late 1980s explication of the validity of the FFM that research attention returned to people's personality attributes as well as situational attributes for understanding performance and affect at work.

Thus, it was early thought that personality determined job satisfaction (worker maladjustment) and then thought it was the situation, and now we think it is both. Early researchers thought that personality was important in understanding leadership, but then that importance was denied and the focus for leadership effectiveness was on leader behavior—as if the behavior itself was not caused by leader personality. Now it has been shown that personality is important not only for leadership but also for organizational culture. In brief, we now know that personality matters, and that in combination with the situation in which the personality is enacted, that understanding of the role of personality

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at work is both conceptually and practically meaningful at numerous levels of analysis.

At a more conceptual level, personality helps us understand the durability of behavior over time, both at work and in life in general. While Mischel (1968) at one time concluded that personality was irrelevant and that human behavior was so inconsistent over time as to not be predictable, it is now known that people's personalities, if anything, become more consistent and their behavior more predictable over time. As Epstein (1977) early showed, (a) people tend to be consistent and predictable when data are cumulated across settings and instances and (b) people do not behave the same way across situations but they are coherent in their behavior. By coherent, Epstein means that the behavior of people in situation A repeats when they are in situations like A and that the behavior of people in situation B repeats when they are in situations like B, yet the same people may behave differently in situations A and B.

And what have we learned about the use of personality testing in the workplace? For too long, it was almost impossible to do meaningful reviews of the literature on personality because

there was no consistent way available for organizing research; the FFM has resolved that problem. So, while the FFM is not the answer to all of the personality prediction problems, it certainly makes accumulating evidence across diverse studies possible. Such cumulative studies via meta-analysis reveal that personality predicts job performance and job satisfaction at work, and that P-E fit predicts satisfaction and turnover at work. There is beginning evidence to suggest that personalities are not randomly assigned to organizations, that there is relative homogeneity of personality within organizations—as well as within careers. If true, then the predicted consequences for organizational health are not good, and ASA theory suggests that wise organizational decision makers will find

ways to hire people who can work with each other but do not necessarily see the world in precisely the same terms. Research is needed to find the appropriate balance with regard to differences.

Clearly, more research is needed. Configural scoring methods (using profiles of attributes rather than single attributes or simple linear combinations of attributes) for the multifaceted measures used must be developed and validated. This requires doing because it is likely that profile combinations of personality attributes, not personality attributes one at a time or in linear combination, will be most useful for understanding behavior at all levels of analysis. For example, in McClelland's (McClelland & Boyatzis, 1982; Spangler et al., 2004) work on leadership motive patterns, especially the need for power, he showed that leaders have strong needs for power but that the most effective leaders were those who had both a strong need for power and high concern for the moral exercise of power. In a similar vein, R. Hogan (e.g., R. Hogan, Curphy, & Hogan, 1994) has emphasized that with regard to the prediction of leadership behavior at work, more effective leaders have a particular configuration of attributes and that ineffective leaders have a different configuration of *different attributes*.

More research is needed in the spirit of James (James & Mazerolle, 2002), in which the cognitive and the subconscious are integrated, since both likely play important roles in personality and behavior. And, of course, this field of endeavor, like all others, should not be limited by the FFM in research and especially in practice, because specific outcomes most likely require that specific traits and/or combinations of traits be assessed (Ones & Viswesveran, 2001)—again, the idea of the bandwidth of the predictor fitting the bandwidth of the criterion (Tett et al., 1991).

Finally, it is, of course, important to note that personality alone is not the answer but only an answer to understanding the causality of behavior and affect in work organizations. Like all scientific endeavors, the pursuit of understanding and using personality as an underpinning for research and practice has had both strong and weak branches but the field as

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a whole has been adaptive and now has a strong foundation on which additional successes can be built in both theory and practice.

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